1. Create Database

CREATE DATABASE universe;

2. Create tables

CREATE TABLE galaxy (galaxy_id SERIAL NOT NULL, star_id INT NOT NULL, name VARCHAR(30) UNIQUE NOT NULL, description TEXT, has_life BOOLEAN, age_in_millions_of_years NUMERIC, distance_from_earth INT);

CREATE TABLE star (star_id SERIAL NOT NULL, galaxy_id INT NOT NULL, planet_id INT NOT NULL, name VARCHAR(30) UNIQUE NOT NULL, description TEXT, has_life BOOLEAN, age_in_millions_of_years NUMERIC, distance_from_earth INT);

CREATE TABLE planet (planet_id SERIAL NOT NULL, star_id INT NOT NULL, moon_id INT NOT NULL, name VARCHAR(30) UNIQUE NOT NULL, description TEXT, has_life BOOLEAN, age_in_millions_of_years NUMERIC, distance_from_earth INT);

CREATE TABLE moon (moon_id SERIAL NOT NULL, planet_id INT NOT NULL, name VARCHAR(30) UNIQUE NOT NULL, description TEXT, has_life BOOLEAN, age_in_millions_of_years NUMERIC, distance_from_earth INT);

CREATE TABLE color (color_id SERIAL NOT NULL, name VARCHAR(30) UNIQUE NOT NULL, uniquecode VARCHAR(30) UNIQUE NOT NULL);

3. Fill the tables with data

INSERT INTO galaxy(galaxy_id, star_id, name) VALUES(1, 1, 1, 'Milky Way'), (2, 1, 2, 'Triangulum Galaxy'), (3, 3, 'Large Magellanic Cloud'), (4, 4, 'Black Eye Galaxy'), (5, 5, 'Pinwheel Galaxy'), (6, 6, 'Cartwheel Galaxy');

INSERT INTO star(star_id, galaxy_id, planet_id, name) VALUES(1, 1, 1, 'Sun'), (2, 2, 2, 'Delta Trianguli'), (3, 3, 3, 'R136a1'), (4, 4, 4, 'NGC 4826 UDF-082935.6+214002.4'), (5, 5, 5, 'NGC 5457 UDF-060241.4+562739.7'), (6, 6, 6, 'ESO 350-40');

INSERT INTO planet(planet_id, star_id, moon_id, name) VALUES(1, 1, 1, 'Mercury'), (2, 1, 2, 'Venus'), (3, 2, 3, 'Earth'), (4, 2, 4, 'Mars'), (5, 3, 5, 'Planet 2'), (6, 3, 6, 'Jupiter'), (7, 4, 7, 'Uranus'), (8, 4, 8, 'Neptune'), (9, 5, 9, 'Saturn'), (10, 5, 10, 'Pluto'), (11, 6, 11, 'Haumea'), (12, 6, 12, 'Ceres');

INSERT INTO moon(moon_id, planet_id, name) VALUES(1, 1, 'Luna'), (2, 1, 'Phobos'), (3, 1, 'Deimos'), (4, 2, 'Ganymede'), (5, 2, 'Callisto'), (6, 2, 'Europa'), (7, 3, 'Io'), (8, 3, 'Titan'), (9, 3, 'Enceladus'), (10, 4, 'Rhea'), (11, 4, 'Mimas'), (12, 4, 'Triton'), (13, 5, 'Nereid'), (14, 5, 'Charon'), (15, 5, 'Hydra'), (16, 6, 'Nix'), (17, 6, 'Oberon'), (18, 6, 'Titania'), (19, 7, 'Ariel'), (20, 7, 'Miranda');

INSERT INTO color(element_id, name, uniquecode) VALUES(1, 'red', '#880808'), (2, 'blue', '#00FFFF'), (3, 'orange', '#FFBF00');

4. Define Primary Keys and Foreign Keys

ALTER TABLE galaxy ADD PRIMARY KEY (galaxy_id);
ALTER TABLE star ADD PRIMARY KEY (star_id);
ALTER TABLE planet ADD PRIMARY KEY (planet_id);
ALTER TABLE moon ADD PRIMARY KEY (moon_id);
ALTER TABLE color ADD PRIMARY KEY (element_id);

ALTER TABLE galaxy ADD FOREIGN KEY (star_id) REFERENCES star(star_id);
ALTER TABLE planet ADD FOREIGN KEY(star_id) REFERENCES star(star_id);
ALTER TABLE moon ADD FOREIGN KEY(planet_id) REFERENCES planet(planet_id);